Washington Suburban Sanitary Commission

14501 Sweitzer Lane • Laurel, Maryland 20707-5901



November 5, 2010

Water Docket
Environmental Protection Agency
Mail code: 28221T
1200 Pennsylvania Avenue, NW.
Washington, DC 20460

Re: Comments on the EPA Draft Chesapeake Bay Total Maximum Daily Load (TMDL) and the Maryland Watershed Implementation Plan (WIP).

Attn: Water Docket I D. No. R03-OW-2010-0736

The Washington Suburban Sanitary Commission (WSSC) is a public utility that has been a leader in the industry since 1918. We are the 8th largest combined water and wastewater utility in the nation with over 1,000 square miles in our sanitary district and a network of more than 5,500 miles of fresh water pipeline and nearly 5,400 miles of sewer pipeline. In addition to the 1.8 million residents served in Prince George's and Montgomery Counties, WSSC directly serves nearly 30 federal facilities including Andrews Air Force Base, NASA Goddard Space Flight Center, the National Institutes of Health and the U.S. Food and Drug Administration. The WSSC operates 2 water filtration plants and 6 wastewater treatment plants. Our wastewater treatment plants treat approximately 198 million gallons per day (MGD), with approximately 63 MGD treated at WSSC and 132 MGD at the Blue Plains Advanced Wastewater Treatment Plant. This represents significant and measurable effluent reaching the Chesapeake Bay.

The Draft Bay TMDL establishes the individual targets for nutrient and sediment loads that must be met to achieve Bay water quality standards throughout the Bay and within the individual segments of the Bay watershed. WSSC recognizes the tremendous challenges facing EPA, the District and our state and local partners to develop a comprehensive plan for implementation of the controls required to address the multifaceted sources of pollution to the Bay. Implementation of the controls required to address pollution loads from all sources that discharge to the Bay watershed, including the significant contribution of air borne pollutants, represents a tremendous fiscal challenge and commitment at all levels for this plan to succeed. In view of the tremendous significance of the Draft Bay TMDL and numerous implications for all

stakeholders the 45 day comment period provided severely limits the level of detailed review and coordination possible. An extension of the comment period would provide time for a more comprehensive analysis and consideration of the multiple aspects of the Draft Bay TMDL.

The WSSC has played an important role in reducing pollutant loading to the Bay from its wastewater treatment plants, designing and deploying advanced technologies and we are now finalizing construction plans to upgrade all WSSC major WWTPs to the meet the requirements established in the Maryland WIP of 4 mg/L TN and 0.3 mg/L TP or better where required to meet local water quality standards. However, we can never address the multitude of challenges facing the health of the Bay without equitably sharing the burdens among all sources of water quality impairment which impact the Bay. To move forward in a meaningful way will require a comprehensive approach that allocates federal, state, local and nongovernmental resources efficiently and mandates equitably to maximize pollution reductions from all remaining sources. The Final Bay TMDL must provide a framework for addressing all sectors of pollution on an equitable basis if the mandate for meeting water quality standards is to be achieved.

The more detailed comments provided here are limited to the assignment of total annual nitrogen, phosphorus, and sediment loads to the major wastewater plants that serve our customers and include the load allocation assigned to that portion of the Maryland flow that is treated by the Blue Plains WWTP located in the District of Columbia.

The Draft Bay TMDL incorporation of the Maryland WIP and the point source load allocations for major municipal wastewater treatment plant NPDES discharges directly impacts WSSC by assigning specific total annual nitrogen, total annual phosphorus, and sediment allocations that must be met by each facility. The specific allocations are shown in the Table contained in Section 9 of the Draft TMDL and the individual WWTPs are shown as follows:

Marlboro Meadows, Parkway, and Western Branch (p.9-32)
Damascus (p.9-33)
Seneca (p.9-34)
Blue Plains and Piscataway (p.9-36)

WSSC has been in direct contact with the Maryland Department of the Environment (MDE) on the inaccuracies in the assigned load allocations shown in Section 9 and we are commenting concurrently directly to MDE as there are also similar inaccuracies in Appendix B that was attached to the draft Maryland WIP submitted to EPA. It is our understanding that MDE will be providing EPA with the revisions to their Appendix B and requesting similar changes to Section 9 of the Draft Bay TMDL so that the two documents correctly show the load allocations that are consistent with the current NPDES permits for each facility.

WSSC staff also participated in a detailed conference call on 10/14/10 chaired by Reginald Parrish of EPA to discuss the load allocations specifically associated with Blue Plains and the Seneca WWTP. The purpose of that call was to convey the position of the Blue Plains Regional Committee on the correct nutrient load allocations that need to be incorporated in the Final Bay TMDL. Separate agreements on the allocation of capacity among the users of Blue Plains are beyond the purview of EPA and governed by the Intermunicipal Agreement (IMA).

WSSC commends EPA for acceptance of the Maryland wastewater load allocation strategy for significant Municipal WWTPs Strategy which is based on implementation of Enhanced Nutrient Removal standards that treat wastewater to 4 mg/L TN and 0.3 mg/L TP stated in section 8.3.2 pp. 8-12 and 8-13 of the Draft Bay TMDL and that no further EPA backstop is necessary with respect to significant WWTPs.

The specific corrections necessary in the Table contained in Section 9 are as follows:

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**Marlboro Meadows**: WSSC is in the process of constructing a pumping station and pipeline that will, upon completion, transfer the flow from the community of Marlboro Meadows to the WSSC Western Branch WWTP. MDE has agreed to transfer the TN, TP and sediment load assigned to Marlboro Meadows and the 0.6 MGD of capacity to the Western Branch WWTP.

There needs to be a footnote to the Table 9 that specifies that the 7,309 TN, 548 TP and 54,820 total sediment allocations for Marlboro Meadows will transfer to Western Branch along with the associated 0.6 MGD of capacity upon completion of the ongoing pump-over project. The discharge from the Marlboro Meadows facility will be eliminated at that time and the current Marlboro Meadows NPDES permit will terminate at that time.

**Parkway**: The load allocations assigned to the Parkway WWTP are correct.

**Western Branch**: The load allocations for the Western Branch WWTP will be increased by the addition of the TN, TP and sediment allocations currently assigned to Marlboro Meadows and the capacity of Western Branch will increase by 0.6 MGD. This can also be handled by a cross reference to the footnote for

**Marlboro Meadows**: The final load allocations at Western Branch upon transfer of the flow from Marlboro Meadows will then be 372,776 TN, 27,958 TP and 2,795,824 total sediment load. The new capacity at Western Branch will be 30.6 MGD.

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**Damascus**: The load allocations assigned to the Damascus WWTP are correct.

**Mattawoman**: The three separate load allocations assigned to the Mattawoman WWTP apparently represent local load equivalents assigned to the multiple jurisdictions that send flow to the wastewater plant. None of the three separate allocations correspond to the commitment by the Mattawoman WWTP to reserve 3 MGD of treatment capacity for the portion of the flow that originates in Prince George's County, Maryland. Appendix B, page 18, of the Maryland WIP simply assigns the entire 20 MGD allocation to the Mattawoman WWTP.

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**Seneca Creek**: The load allocations shown for Seneca are incorrect since they are based on a capacity of 20 MGD and the approved design capacity is 26 MGD. The Seneca NPDES permit recently issued and effective on 10/1/2010 reflects the authorized 6 MGD increase in capacity for a total Seneca capacity of 26 MGD. The associated nutrient load allocations authorized are 316,738 TN and 21,563 TP at a design capacity of 26 MGD.

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**Blue Plains**: The two separate load allocations shown for the Maryland portion of the flow are artificial jurisdictional load designations that have no practical meaning as the Maryland portion of the flow to Blue Plains is assigned to WSSC and not proportioned among Montgomery and Prince George's Counties. The total load allocation is also in error. The correct nitrogen load for allocation for the Maryland portion of the flow at Blue Plains is 1,993,000 TN. The TN load allocation shown in the Blue Plains permit and in the Blue Plains Regional Committee letter of April 7, 2010 (attached) clearly confirms that the agreed to TN annual load allocation for Blue Plains is 1,993,000 lbs. In addition, WSSC supports the proposed footnote to the Draft Bay TMDL and the Maryland WIP regarding assignment or transfer of future nutrient load allocations at Blue Plains noted at the bottom of page 6 of the letter from the Blue Plains Regional Committee.

The WSSC Potomac Water Treatment Plant (WTP) also has an NPDES permit that may need to be added to the list of NPDES point source dischargers in Table 9 of the Bay TMDL and to Appendix B of the Maryland WIP. Although the Potomac WTP does not have nutrient limits, the NPDES permit does impose limits on the discharge of suspended solids under certain conditions and the Draft Bay TMDL is assigning annual sediment loads to NPDES dischargers. There may not be a need to assign a sediment load allocation for the purposes of running the Bay model since there is a net removal of sediment from the Potomac watershed by the Potomac WTP process. In a typical year

the operation of the Potomac WTP results in a net reduction of approximately 2,350 dry tons of sediment per year, or 4,700,000 dry pounds of solids per year at the current raw water production rate of 123 MGD. The net reduction in sediment load to the Potomac should be recognized for the purposes of modeling the sediment load in the Potomac watershed.

Finally, WSSC is committed to proceeding with the upgrades to our WWTPS to meet the requirements of the Draft Bay TMDL as specified in the Maryland Watershed Implementation Plan. We are equally committed to providing the financial support necessary to realize those improvements and to providing an equitable share of the cost of the Blue Plains WWTP upgrade to ENR consistent with the funding formula for the Blue Plains users in the Intermunicipal Agreement that govern those commitments.

Thank you for the opportunity to comment on the Draft Bay TMDL and the Maryland WIP.

Sincerely,

Gary J. Gumm, P.E.
Chief Engineer

Enclosure(s)

c: Tom Thornton, Maryland Department of Environment
Dave Lake, Montgomery County Department of Environment
Beverly Warfield, Prince George's County Department of Environmental Resources
Tanya Spano, Metropolitan Washington Council of Governments


District of Columbia

District of Columbia – Water and Sewer Authority

Fairfax County

Montgomery County

Prince George's County

Washington Suburban Sanitary Commission


# BLUE PLAINS REGIONAL COMMITTEE


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April 7, 2010

By Email and First Class Mail

Mr. Richard Eskin
Director, Science Services Administration
Maryland Department of the Environment
1800 Washington Boulevard
Baltimore, MD 21230
reskin@mde.state.md.us

Re. Chesapeake Bay TMDL Waste Load Allocations for the Blue Plains Advanced Wastewater Treatment Plant

Dear Mr. Eskin:

I am writing on behalf of the Blue Plains Regional Committee (BPRC) to request that the Department of the Environment include the attached proposed Maryland allocations and approach to allocation-related permit conditions for the Blue Plains Advanced Wastewater Treatment Plant (Blue Plains) when the Department submits its proposed Potomac waste load allocations and Watershed Implementation Plans for the Chesapeake Bay TMDLs to the U.S. Environmental Protection Agency later this spring.

As you may know, the BPRC represents the interests of the Blue Plains Users (i.e., the District of Columbia; Fairfax County, Virginia; Montgomery and Prince George's Counties, Maryland, and the Washington Suburban Sanitary Commission) as defined under the terms of the 1985 Blue Plains Intermunicipal Agreement.

As a facility serving the District and multiple jurisdictions in Virginia and Maryland, Blue Plains will need allocations contributed not only by the Maryland Department of the Environment, but also by the District Department of the Environment and the Virginia Department of Environmental Quality. Therefore, I am submitting the attached paper today to these agencies as well, with the request that they too include the proposed allocations and approach set forth in the attached paper when they make their Chesapeake Bay TMDL submissions to EPA.

Although we would prefer to have a single joint meeting with all the state agencies to discuss these proposals, we recognize that such a meeting is not practical given the demands upon everyone's time and the pressure you are under to complete and submit your waste load allocations and Watershed Implementation Plan proposals between now and June 1. Therefore, we wish to schedule separate meetings with each agency to discuss the proposals. To that end, a representative of the BPRC will be contacting you to arrange a meeting at

the earliest convenient opportunity. In the meantime, I urge you and your colleagues to review the attached paper and to please contact Leonard Benson (lbenson@dcwasa.com) with DC-WASA or Dave Evans with McGuire Woods (devans@mcguirewoods.com) if you have any questions or need additional information prior to the meeting.

Sincerely

Robin-Eve Jasper
BPRC Chair
District of Columbia

Attachment: Blue Plains Load Allocation Fact Sheet

Cc: Monir Chowdury, PhD, District Department of the Environment
John Kennedy, Virginia Department of Environmental Quality
Bob Summers, Maryland Department of the Environment
Lee Currey, Maryland Department of the Environment
Jeff Horan, Maryland Department of Natural Resources
BPRC members
Dave Evans, McGuire Woods

Attachment to April 7, 2010 Letters to:
The District Department of the Environment,
The Maryland Department of the Environment, and
The Virginia Department of Environmental Quality

Regarding the Chesapeake Bay TMDL Waste Load Allocations for:
The Blue Plains Advanced Wastewater Treatment Plant, and
The Combined Sewer System in the District of Columbia

## Background

The Blue Plains Advanced Wastewater Treatment Plant ("Blue Plains" or "the Plant") and the District of Columbia combined sewer system (CSS) are operated by the District of Columbia Water and Sewer Authority (DC-WASA). Blue Plains' 370 million gallons per day (MGD) annual average complete treatment capacity is currently allocated among the local jurisdictions and agencies served by the Plant as follows:

| Local Jurisdiction/Agency | Design Flow Capacity Allocations (MGD) |
|---|---|
| District of Columbia (District) | 148.0 |
| Washington Suburban Sanitation Commission[1] (WSSC – serving Montgomery County and Prince George's County) | 169.6 |
| Fairfax County | 31.0 |
| Maryland entities other than WSSC that use the Potomac Interceptor to send flow to Blue Plains | 0.10 |
| Virginia entities other than Fairfax County that use the Potomac Interceptor to send flow to Blue Plains | 16.8 |
| Reserved capacity in the Potomac Interceptor for the Virginia entities that send flow to Blue Plains | 4.5 |
| **Total** | **370.0** |

DC-WASA has developed and is in the process of implementing a Long Term Combined Sewer Overflow (CSO) Control Plan (LTCP) that, when completed in 2025, will reduce CSO discharges to the Anacostia and Potomac Rivers and Rock Creek by an overall average of 96 percent. A critical element of the LTCP is upgrades to Blue Plains that will enable the Plant to provide complete treatment for combined sanitary and storm water flows at rates up to and including 555 MGD during and following rainfall events and enhanced primary treatment and disinfection at rates up to 225 MGD for wet weather flows exceeding the Plant's complete treatment capacity. Complete treatment and wet weather flow treatment are separate treatment trains and discharge from separate outfalls (Outfall 002 for the complete treatment train and Outfall 001 for the wet weather treatment train).

Also, DC-WASA is in the process of upgrading Blue Plains that will provide treatment to limit of technology for Total Nitrogen (TN) for flows receiving complete treatment when completed in 2015. Blue Plains already provides treatment to limit of

[1] WSSC manages the flow capacity and load allocations on behalf of Prince George's and Montgomery Counties.

technology for Total Phosphorus (TP) in order to meet stringent average monthly and average weekly TP limits established several years ago to protect local water quality. The wet weather treatment train presently serves to reduce nutrients bound to suspended solids removed by primary treatment, but it is not equipped with technology designed to remove nutrients. The Plant upgrades now under design will add enhanced primary treatment to the wet weather treatment train when completed in 2018, but will not add technology designed to remove nutrients.

## Current Nitrogen Allocation and Permit Conditions

The 4,689,000 lbs/yr TN allocation assigned to Blue Plains in the Chesapeake Bay Tributary Strategies process[2] reflects the total allocation contributions by the District, Maryland, and Virginia as follows:

| Source | TN Load Allocation Contribution (lbs/yr) |
|---|---|
| District of Columbia | 2,115,000 |
| Maryland (WSSC and MD Potomac Interceptor users) | 1,993,000 |
| Virginia (Fairfax County and VA Potomac Interceptor users) | 581,000 |
| Total | 4,689,000 |

These allocation contributions reflect the complete treatment flow capacity (Outfall 002) allocated to the jurisdictions served by Blue Plains.

The Tributary Strategies process also allocated 5,300 lbs/yr TN to discharges from the 48 CSO outfalls on the Potomac, the Anacostia, and Rock Creek that will remain after the LTCP is implemented. This allocation is based on the estimated TN that will be discharged from the outfalls following LTCP implementation during the average year condition (i.e., average of the discharges predicted to occur in the years 1988 - 1990) used to design the capacity of the CSO controls in the LTCP. In other words, TN loads discharged from the CSO outfalls remaining after LTCP implementation can be expected to exceed 5,300 lbs/yr in those years when rainfall exceeds the average year condition.

The U.S. Environmental Protection Agency (EPA) modified DC-WASA's permit in April 2007 to add the 4,689,000 allocation as a annual TN limit without specifying whether the limit applied to all flows treated at the Plant or only to flows receiving complete treatment and discharged from Outfall 002. This posed a problem because if the limit applied to all flows treated at the Plant, it is unlikely that DC-WASA would have been able to comply with the limit during very wet years when the Plant will treat large volumes of captured combined sewer flow though both complete treatment and wet weather treatment. Therefore, during discussions in 2009 leading up to reissuance of

[2] Blue Plains was not assigned a total phosphorus allocation in the Tributary Strategies process.

DC-WASA's permit, EPA and DC-WASA agreed to modify the permit to clearly state that the TN limit applied only to flows receiving complete treatment and discharged from Outfall 002.

However, in order to account for the TN load in wet weather flows discharged from Outfall 001, EPA and DC-WASA also agreed to subtract 311,420 lbs/yr from the allocation. This load was based on a predicted average annual TN effluent concentration of 8.1 mg/l and reflected the estimated TN load that would have been discharged from Outfall 001 during 1989, the wettest year in the three-year period (1988-1990) used to develop the LTCP. It was agreed that this portion of the allocation (311,420 lbs/yr) would be distributed to Outfall 001 and that the remaining portion of the allocation (4,377,580 lbs/yr) would be distributed to Outfall 002. Accordingly, the TN allocation distribution agreed to by EPA and DC-WASA is as follows:

| Outfall | TN Load Allocation Distribution (lbs/yr) |
|---|---|
| 001 | 311,420 |
| 002 | 4,377,580 |
| Total | 4,689,000 |

EPA and DC-WASA further agreed that EPA would include a TN monitoring requirement (but not a limit) for Outfall 001 in the permit and include language regarding distribution of the allocation to Outfalls 001 and 002 in the fact sheet accompanying the reissued permit. It was agreed that, together, the permit and fact sheet would provide a method for determining compliance with that portion of the TN allocation distributed to Outfall 001 and stipulate that performance assessments for Outfall 001 would be submitted with each application for permit reissuance.

Although the 4,377,580 lbs/yr limit for Outfall 002 equates to an effluent TN concentration of 3.89 mg/l at Blue Plains' 370 MGD design capacity, the Plant will have to perform at close to limit-of-technology to comply with the limit during wet years when the Plant will treat average annual flows exceeding 370 MGD. For example, it is anticipated that there will be years in the future when the Plant will be required to provide complete treatment for as much as 435 MGD on an annual average basis. At this flow, the Plant would have to achieve an average annual TN concentration of 3.30 mg/l while overcoming the inhibiting effects of treating large volumes of cooler wet weather flow in order to comply with the limit.

## Proposed Approach to Establishing Waste Load Allocations and Corresponding Permit Conditions for Blue Plains and the Combined Sewer System (CSS)

The upgrades to Blue Plains and the District's CSS now under design and construction represent a total investment of approximately $3.3 billion ($950 million for Blue Plains, and $2.4 billion for the LTCP). The local jurisdictions and agencies with allocated treatment capacity in Blue Plains are making this investment in reliance on the TN allocations now assigned to Blue Plains and the District's CSS and the allocation-related permit conditions that EPA has agreed to include in DC-WASA's reissued permit. A significant change in these allocations or allocation-related permit conditions could undermine DC-WASA's ability to comply with the permit following construction and put the ongoing multi-billion dollar investment at risk. Therefore, it is critical that the Chesapeake Bay Total Maximum Daily Load (TMDLs) (1) incorporate the TN allocations now assigned to Blue Plains and the District's CSS, and (2) that the allocations be footnoted to assure that the allocation-related permit conditions and fact sheet language agreed to by EPA and DC-WASA are included in DC-WASA's reissued permit and every permit reissuance thereafter. It is also important that the Bay TMDL include TP and sediment-related[3] allocations for Blue Plains and the District's CSS to ensure that these discharges are authorized in the future and that the TP and sediment-related allocations include footnotes similar to those proposed for the TN allocations.

### 1. The Blue Plains TN Allocation

As explained above, the TN allocation now assigned to Blue Plains reflects the total allocation contributions provided by the District, Maryland, and Virginia. Therefore, it is important that the District, Maryland, and Virginia include in their proposed Bay TMDL waste load allocations the same TN allocation assigned to Blue Plains in the Tributary Strategies process.

| Source | TN Load Allocation Contribution (lbs/yr) |
|---|---|
| District of Columbia | 2,115,000 |
| Maryland (WSSC and MD Potomac Interceptor users) | 1,993,000 |
| Virginia (Fairfax County and VA Potomac Interceptor users) | 581,000 |
| **Total** | 4,689,000 |

[3] Although TMDLs are being developed for sediment, it is unclear at this time how the waste load allocations for municipal wastewater treatment plants will be expressed in the sediment TMDLs. Permit limits on solids discharged by these plants are commonly expressed as "total suspended solids" or "TSS", but total settleable solids may be a more accurate measure of sediment in a municipal wastewater treatment plant discharge.

## 2. The Blue Plains TP Allocation

The following TP allocation distribution is proposed for Blue Plains:

| Outfall | TP Load Allocation Distribution (lbs/yr) |
|---|---|
| 001 | 10,000 |
| 002 | 238,353 |
| Total | 248,353 |

The proposed 248,353 lbs/yr TP allocation is based on the total of (1) the existing 0.18 mg/l TP permit limit and a predicted annual average complete treatment flow of 435 MGD for Outfall 002[4] (238,353 lbs/yr), and (2) the predicted performance and average flow for the upgraded wet weather treatment train (0.26 mg/l TP and 12.6 MGD, respectively, for Outfall 001 (10,000 lbs/yr)).

This allocation would be sufficient to cover the equivalent degree of wet weather performance requirements used to distribute the TN allocation to Outfall 001 and Outfall 002.

It is also proposed that the District, Maryland, and Virginia contribute to the TP allocation as follows:

| Source | TP Load Allocation Contribution (lbs/yr) |
|---|---|
| District of Columbia | 105,341 |
| Maryland (WSSC and MD Potomac Interceptor users) | 109,404 |
| Virginia (Fairfax County and VA Potomac Interceptor users | 33,608 |
| Total | 248,353 |

The allocation contributions for Outfall 002 (238,353 lbs/yr) are apportioned among the District, Maryland, and Virginia in the same way that the TN allocation contributions were apportioned i.e. based on the complete treatment capacity allocated to the District and the Maryland and Virginia jurisdictions served by Blue Plains. The allocation contribution for Outfall 001 (10,000 lbs/yr) has been attributed to the District for treatment of flows from the CSS.

## 3. The Blue Plains Sediment-Related Allocation

We are unable to offer proposed sediment-related allocations until more is known about the Bay-wide sediment load allocation and EPA's approach to setting sediment-related waste load allocations for municipal wastewater treatment plants. We do note,

[4] The 435 MGD figure is a modeled wet weather flow of 65 MGD using 2002 rainfall data added to the Plant's 370 MGD design flow.

however, that both the complete treatment train and the wet weather treatment train achieve very high levels of TSS removal. Therefore, the sediment-related waste load allocations that are ultimately adopted should the reflect Blue Plains' current performance and not impose any further requirement to remove solids than those now in the permit.

### 4. Blue Plains Allocation-Related Permit Conditions

The Blue Plains allocations should be footnoted to explain how the allocations were derived and to provide direction to permit writers to ensure that the allocation-related permit conditions agreed to by EPA and DC-WASA are incorporated into the next reissuance of the Plant's permit and each reissuance thereafter. The footnote should state that 311,420 lbs/yr of the TN allocation and 10,000 lbs/yr of the TP allocation should be distributed to Outfall 001, explain the basis for these distributions, advise permit writers not to include the allocations distributed to Outfall 001 as permit conditions, and set forth the allocation-related compliance language that should be included in the fact sheet accompanying the permit. Specifically, the footnote should provide for TN and TP monitoring at Outfall 001 and state that DC-WASA will be deemed to be in compliance so long as discharges from Outfall 001 do not exceed the allocations distributed to Outfall 001 when modeled for the Bay TMDL rainfall condition using data from post-construction monitoring. Further, the footnote should make clear that compliance with the allocation distributions is dependent on completion of upgrades now in progress, including enhanced nutrient removal upgrades to the complete treatment train scheduled for completion in 2015 and enhancements to the wet weather treatment train scheduled for completion in 2018.

### 5. All Nutrient Load Allocations Should be Assigned to Blue Plains and Linked to Blue Plains' Design Flows/Capacities

Given the multi-state nature of the nutrient load allocations assigned to Blue Plains and the many entities served by Blue Plains, it is important to ensure that the various nutrient TMDLs and implementing state regulations assign the nutrient load allocations to Blue Plains, that provision is made for transferring allocations away from Blue Plains where needed elsewhere by the entities served by Blue Plains, and that allocation transfers do not adversely affect DC-WASA's ability to comply with its permit.

Therefore, the nutrient load allocations[5] in the TMDLs and implementing state regulations should:

1. Assign all Nutrient Load Allocations to Blue Plains' design flows/ capacities;
2. Be footnoted to state that:
   a. Nutrient Load Allocations assigned to Blue Plains may be transferred away from Blue Plains or reallocated, so long as: a) any local jurisdiction or agency that is acquiring additional treatment flow capacity in Blue Plains first makes provision for replacing the transferred or reallocated allocations on a pound-for-pound basis, or b) DC-WASA has confirmed in writing that the

[5] This proposed approach should also be applied to the sediment-related allocation for Blue Plains when that allocation is established.

failure to replace the transferred allocations on a pound-for-pound basis will not adversely affect DC-WASA's ability to comply with its permit.

b. Nutrient Load Allocations transferred away from Blue Plains may be transferred to and used on a pound-for-pound basis at one or more existing, expanded, or new treatment plants to accommodate treatment flow capacity that is transferred away from Blue Plains.

## 6. CSO Outfall Allocations and Related Permit Conditions

The following TN and TP allocations are proposed for the CSO outfalls remaining after LTCP implementation:

| TN (lbs/yr) | TP (lbs/yr) |
|---|---|
| 5,300 | 1,200 |

The proposed TN allocation is the same as that assigned to the CSO outfalls in the Tributary Strategies process. The proposed TP allocation is based on the predicted discharges derived from the 1988-1990 average year condition used to develop the LTCP. A sediment-related allocation should also be assigned to the CSO outfalls and will be offered when more is known about the Bay-wide sediment load allocations and EPA's approach to setting sediment-related waste load allocations for CSO outfalls.

The TN allocation assigned to the CSO outfalls in the Tributary Strategies process was contributed entirely by the District because the allocation is for the District's CSS. It is proposed that the District contribute the TN and TP allocations for the CSO outfalls in the Bay TMDL as well.

It is important that the CSO outfall allocations be footnoted to provide direction to permit writers so that that the allocations are not incorporated into DC-WASA's permit as mass load limits. Even if the allocations are based on the 1988-1990 average annual condition and compliance is tied to that same condition, it would be impossible to assure compliance with mass load limits for the CSO outfall discharges every year because of the variability in wet weather events and resulting flows and loads. This is because it is not possible to accurately quantify and predict all of the weather pattern variables affecting annual nutrient and sediment loads from the CSO outfalls, including rainfall intensities, duration, soil antecedent moisture conditions, ground coverage, rainfall frequencies, and spatial and time distribution. In addition, nutrient and sediment loads in discharges from CSO outfalls are incapable of precise measurement. Discharges from CSO outfalls pose many of the same compliance monitoring challenges as discharges from municipal separate storm sewer systems. Therefore, the CSO outfall allocations should be footnoted to state that DC-WASA will be deemed to be in compliance with its CSO outfall allocations if it is in compliance with the LTCP-derived performance standards and Nine Minimum Control requirements in its permit.

This proposed approach is consistent with EPA's CSO Control Policy (now incorporated into the Clean Water Act) because both the Policy and the proposed approach call for permits for combined sewer systems to use narrative requirements

and performance standards (including requirements to implement the Nine Minimum Controls) in lieu of numeric effluent limits to ensure that the CSO controls are operated as designed and constructed. See Policy at IV.B.2. This approach is also consistent with EPA's November 22, 2002 memorandum titled "Establishing Total Maximum Daily Load (TMDL) Wasteload Allocations (WLAs) for Storm Water Sources and NPDES Permit Requirements Based on Those WLAs." This memorandum explains that it is appropriate to use aggregate and/or categorical allocations as well as best management practices in cases where sources are highly variable or are controlled on a system-wide basis. This memorandum focuses on storm water, but the same variability issues that are the basis for the policies expressed in that memorandum are also applicable to combined sewer flows.

I:\BLUEPLAINS\Long-term Planning\Flow & Load Allocations\BP Load Allocations - 2010\BP TMDL WLA - Attach to BPRC Ltr to States-DC_Final.docx